

## KEY FIGURES

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# Protecting the Environment

## GHG Emissions

### GRI 305-1: Direct (Scope 1) GHG Emissions

Gross Direct (Scope 1) GHG Emissions in Metric Tons of CO<sub>2</sub> equivalent

| Carbon sources                      | 2018 - Gross Direct GHG Emissions<br>(Metric Tons CO <sub>2</sub> e) | 2019 - Gross Direct GHG Emissions<br>(Metric Tons CO <sub>2</sub> e) | 2020 - Gross Direct GHG Emissions<br>(Metric Tons CO <sub>2</sub> e) |
|-------------------------------------|--|--|--|
| Diesel                              | 6,210  | 5,830  | 6,530  |
| Electricity: Non-Renewable          | 12,700   | 13,100   | 13,200   |
| LPG                                 | 5  | 6  | 6  |
| Gasoline                            | 77   | 126  | 105  |
| Natural gas                         | 15,700   | 14,500   | 14,400   |
| Vehicles: distance travelled        | 234  | 239  | 60   |
| Propane                             | 32   | 28   | 28   |
| Refinery fuel gas                   | 1,160  | 1,130  | 1,170  |
| Refrigerants (CO <sub>2</sub> only) | 22,600   | 17,700   | 1,680  |
| Steam                               | 15,600   | 15,100   | 15,200   |
| Process emissions                   | 6,120  | 7,490  | 5,040  |
| <b>Grand Total</b>                  | <b>80,400</b>  | <b>75,200</b>  | <b>57,400</b>  |

## GRI 305-2: Energy Indirect (Scope 2) GHG Emissions

### Gross Market-based Energy Indirect GHG Emissions in Metric Tons of CO<sub>2</sub>e

| Carbon sources             | 2018 - Gross Market-based Energy Indirect GHG Emissions (Metric Tons CO <sub>2</sub> e) | 2019 - Gross Market-based Energy Indirect GHG Emissions (Metric Tons CO <sub>2</sub> e) | 2020 - Gross Market-based Energy Indirect GHG Emissions (Metric Tons CO <sub>2</sub> e) |
|----------------------------|---|---|---|
| Electricity: Non-Renewable | 51,500  | 50,700  | 49,500  |
| Electricity: Renewable     | -   | -   | -   |
| Steam                      | 78,900  | 80,800  | 75,100  |
| <b>Grand Total</b>         | <b>130,000</b>  | <b>132,000</b>  | <b>125,000</b>  |

### Gross Location-based Energy Indirect (Scope 2) GHG Emissions in Metric Tons of CO<sub>2</sub>e

| Carbon sources             | 2018 - Gross Location-based Energy Indirect GHG Emissions (Metric Tons CO <sub>2</sub> e) | 2019 - Gross Location-based Energy Indirect GHG Emissions (Metric Tons CO <sub>2</sub> e) | 2020 - Gross Location-based Energy Indirect GHG Emissions (Metric Tons CO <sub>2</sub> e) |
|----------------------------|---|---|---|
| Electricity: Non-Renewable | 46,700  | 43,400  | 41,500  |
| Electricity: Renewable     | -   | -   | 49  |
| Steam                      | 78,900  | 80,800  | 75,100  |
| <b>Grand Total</b>         | <b>126,000</b>  | <b>124,000</b>  | <b>117,000</b>  |

## GRI 305-4: GHG Emissions Intensity

### GHG Emissions Intensity Ratio for the Organisation in Metric Tons of CO<sub>2</sub>e/ Tons of Production

The Organisation-specific metric (the denominator) chosen to calculate the ratio was tons (t) of production. Scope 1 and 2 GHG emissions have been included in the intensity ratio.

| Carbon sources                      | 2018 - Gross Direct GHG Emissions<br>(Metric Tons CO <sub>2</sub> e/ Production Tons) | 2019 - Gross Direct GHG Emissions<br>(Metric Tons CO <sub>2</sub> e/ Production Tons) | 2020 - Gross Direct GHG Emissions<br>(Metric Tons CO <sub>2</sub> e/ Production Tons) |
|-------------------------------------|---|---|---|
| Diesel                              | 0.005   | 0.005   | 0.006   |
| Electricity: Non-Renewable          | 0.048   | 0.047   | 0.048   |
| LPG                                 | 0.000   | 0.000   | 0.000   |
| Gasoline                            | 0.000   | 0.000   | 0.000   |
| Natural gas                         | 0.013   | 0.012   | 0.013   |
| Vehicles: distance travelled        | 0.000   | 0.000   | 0.000   |
| Process emissions                   | 0.005   | 0.006   | 0.004   |
| Propane                             | 0.000   | 0.000   | 0.000   |
| Refrigerants (CO <sub>2</sub> only) | 0.018   | 0.015   | 0.001   |
| Steam                               | 0.076   | 0.080   | 0.080   |
| Refinery fuel gas                   | 0.001   | 0.001   | 0.001   |
| <b>Grand Total</b>                  | <b>0.166</b>  | <b>0.167</b>  | <b>0.153</b>  |

## Climate & Energy

### GRI 302-1: Total Fuel Consumption within the Organisation from Non-renewable Sources in Gigajoules

| Energy sources             | 2018 - Non-renewable Fuel Consumption (Gigajoules) | 2019 - Non-renewable Fuel Consumption (Gigajoules) | 2020 - Non-renewable Fuel Consumption (Gigajoules) |
|----------------------------|--|--|--|
| Diesel                     | 90,200   | 124,000  | 97,700   |
| Electricity: Non-Renewable | 680,000  | 683,000  | 673,000  |
| LPG                        | 87   | 104  | 94   |
| Gasoline                   | 1,190  | 1,940  | 1,650  |
| Natural gas                | 305,000  | 284,000  | 282,000  |
| Propane                    | 544  | 464  | 461  |
| Steam                      | 1,820,000  | 1,950,000  | 1,860,000  |
| Refinery fuel gas          | 84,200   | 84,300   | 84,800   |
| <b>Grand Total</b>         | <b>2,980,000</b>                                   | <b>3,130,000</b>                                   | <b>3,000,000</b>                                   |

### Total Fuel Consumption within the Organisation from Renewable Sources in Gigajoules

| Energy sources         | 2018 - Renewable Fuel Consumption (Gigajoules) | 2019 - Renewable Fuel Consumption (Gigajoules) | 2020 - Renewable Fuel Consumption (Gigajoules) |
|------------------------|--|--|--|
| Electricity: Renewable | 456  | 456  | 12,100   |
| <b>Grand Total</b>     | <b>456</b>                                     | <b>456</b>                                     | <b>12,100</b>                                  |



## Electricity Consumption and Steam Consumption in Gigajoules

| Energy sources             | 2018 - Fuel Consumption (Gigajoules) | 2019 - Fuel Consumption (Gigajoules) | 2020 - Fuel Consumption (Gigajoules) |
|----------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Electricity consumption    | 630,000                              | 631,000                              | 630,000                              |
| Electricity: Non-Renewable | 630,000                              | 631,000                              | 618,000                              |
| Electricity: Renewable     | 456                                  | 456                                  | 12,100                               |
| Steam consumption          | 1,780,000                            | 1,910,000                            | 1,830,000                            |
| Steam                      | 1,780,000                            | 1,910,000                            | 1,830,000                            |
| <b>Grand Total</b>         | <b>2,410,000</b>                     | <b>2,540,000</b>                     | <b>2,460,000</b>                     |

## Electricity Sold and Steam Sold in Gigajoules

| Energy sources             | 2018 - Fuel Sold (Gigajoules) | 2019 - Fuel Sold (Gigajoules) | 2020 - Fuel Sold (Gigajoules) |
|----------------------------|-------------------------------|-------------------------------|-------------------------------|
| Electricity sold           | 50,100                        | 52,600                        | 54,300                        |
| Electricity: Non-Renewable | 50,100                        | 52,600                        | 54,300                        |
| Steam sold                 | 34,800                        | 33,400                        | 31,000                        |
| Steam                      | 34,800                        | 33,400                        | 31,000                        |
| <b>Grand Total</b>         | <b>84,900</b>                 | <b>86,000</b>                 | <b>85,300</b>                 |

## Total Energy Consumption within the Organisation in Gigajoules

We have used the following sources for conversion factors:

- Calorific values used for Diesel, LPG, Gasoline, Propane etc - [DEFRA](#)
- Steam – using calorific value available online via engineering toolbox website based on the pressure of steam used by sites
- Remaining – general conversions taken primarily from DEFRA

| Energy sources             | 2018 - Energy Consumption<br>(Gigajoules) | 2019 - Energy Consumption<br>(Gigajoules) | 2020 - Energy Consumption<br>(Gigajoules) |
|----------------------------|---|---|---|
| Diesel                     | 90,200                                    | 124,000                                   | 97,700                                    |
| Electricity: Non-Renewable | 680,000                                   | 683,000                                   | 673,000                                   |
| Electricity: Renewable     | 456                                       | 456                                       | 12,100                                    |
| LPG                        | 87  | 104                                       | 94  |
| Gasoline                   | 1,190                                     | 1,940                                     | 1,650                                     |
| Natural gas                | 305,000                                   | 284,000                                   | 282,000                                   |
| Propane                    | 544                                       | 464                                       | 461                                       |
| Steam                      | 1,820,000                                 | 1,950,000                                 | 1,860,000                                 |
| Refinery fuel gas          | 84,200                                    | 84,300                                    | 84,800                                    |
| <b>Grand Total</b>         | <b>2,980,000</b>                          | <b>3,130,000</b>                          | <b>3,010,000</b>                          |

**GRI 302-3: Energy Intensity**

**Energy Intensity Ratio for the Organisation in Gigajoules/ Tons of Production**

| Energy sources             | 2018 - Energy Consumption<br>(Gigajoules/ Production Tons) | 2019 - Energy Consumption<br>(Gigajoules/ Production Tons) | 2020 - Energy Consumption<br>(Gigajoules/ Production Tons) |
|----------------------------|--|--|--|
| Diesel                     | 0.06   | 0.08   | 0.08   |
| Electricity: Non-Renewable | 0.44   | 0.46   | 0.53   |
| Electricity: Renewable     | 0.00   | 0.00   | 0.01   |
| Gas: LPG                   | 0.00   | 0.00   | 0.00   |
| Gasoline                   | 0.00   | 0.00   | 0.00   |
| Natural gas                | 0.20   | 0.19   | 0.22   |
| Propane                    | 0.00   | 0.00   | 0.00   |
| Steam                      | 1.18   | 1.32   | 1.46   |
| Refinery fuel gas          | 0.05   | 0.06   | 0.07   |
| <b>Grand Total</b>         | <b>1.93</b>  | <b>2.12</b>  | <b>2.36</b>  |



## Energy Data Methodology

The organisation-specific metric chosen to calculate the ratio was tons (t) of production. All types of energy are included within the intensity ratio: fuel, electricity, heating, cooling, and steam. The ratio used energy consumption within the organisation.

The data has been calculated to three significant figures. The base year for our calculation is 2018, as it is considered the most recent representative year for production across Infineum sites globally. The calculations account for the six major GHGs (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>) where possible.

Non-renewable electricity and steam at our site in Vado Ligure, Italy is produced by natural gas being burned in the co-generation unit and the energy use is accounted for as Natural Gas.

We use Department for Environment, Food & Rural Affairs (DEFRA) emission factors for most emissions except for the following: refinery fuel gas where we use the molecular content of gas and stoichiometry; grid electricity for all countries except UK and USA where we use the International Energy Agency (IEA); and US electricity where we use EPA.

When refrigerant data is unavailable, we use estimates based on average leak rates supplied by DEFRA UK.

We measure GHG emissions based on the operational control criterion and follow the GHG Protocol Corporate Standard.

We work with site leads to identify the most suitable individual(s) to identify the direct and indirect emission sources for that site and provide emissions and other environmental data each month. We engage with these representatives on a quarterly basis and conducted site visits to all significant emitters in 2019 to ensure accuracy.

Small offices (10 or fewer Infineum colleagues) are excluded from emissions estimates.

Due to the Services Utilities Materials Facilities (SUMF) agreement for our Rio de Janeiro site, estimated consumption of steam and electricity figures are yet to be independently metered. As a result, this site is billed for steam consumption in the amount of natural gas used to generate said steam.

## Water

### GRI 303-1: Water Withdrawal by Source

#### Total Volume of Water Withdrawn in Megalitres

| Water sources      | 2018 - Water Used (Megalitres) | 2019 - Water Used (Megalitres) | 2020 - Water Used (Megalitres) |
|--------------------|--------------------------------|--------------------------------|--------------------------------|
| Groundwater        | 333                            | 322                            | 293                            |
| Municipal supply   | 1,220                          | 1,270                          | 1,260                          |
| Sea                | 14,100                         | 11,900                         | 10,900                         |
| <b>Grand Total</b> | <b>15,700</b>                  | <b>13,500</b>                  | <b>12,500</b>                  |

Sea water is used at our Bayway, New Jersey site for cooling and firefighting only. Under normal operating conditions this is safely returned to sea.

## Resource efficiency & waste

### GRI 306-3: Total Weight of Waste Generated in Metric Tons

This data is externally audited.

'Biological treatment' uses natural processes to help with the decomposition of organic substances, to remove them from wastewater for proper disposal.

| Waste type and disposal methods      | 2018 - Waste Generated (Metric Tons) | 2019 - Waste Generated (Metric Tons) | 2020 - Waste Generated (Metric Tons) |
|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Liquid Hazardous                     | 9,460                                | 9,680                                | 10,100                               |
| Biological treatment                 | 873                                  | 598                                  | 223                                  |
| Incineration with energy recovery    | 7,260                                | 6,810                                | 7,800                                |
| Incineration without energy recovery | 710                                  | 1,620                                | 1,790                                |
| Landfill                             | -                                    | 75                                   | 43                                   |
| Recycling                            | 618                                  | 483                                  | 173                                  |
| Reuse                                | -                                    | 91                                   | 83                                   |
| Water Treatment                      | -                                    | -                                    | 6                                    |
| Liquid Non-hazardous                 | 2,020                                | 3,200                                | 4,500                                |
| Incineration with energy recovery    | 0                                    | 1,550                                | 1,460                                |
| Incineration without energy recovery | 43                                   | 47                                   | 188                                  |
| Landfill                             | -                                    | -                                    | 1,220                                |
| Recycling                            | 38                                   | 0                                    | 0                                    |
| Reuse                                | -                                    | -                                    | -                                    |
| Water Treatment                      | 1,940                                | 1,600                                | 1,630                                |

## Resource efficiency & waste

### GRI 306-3: Total Weight of Waste Generated in Metric Tons (continued)

This data is externally audited.

'Biological treatment' uses natural processes to help with the decomposition of organic substances, to remove them from wastewater for proper disposal.

| Waste type and disposal methods      | 2018 - Waste Generated<br>(Metric Tons) | 2019 - Waste Generated<br>(Metric Tons) | 2020 - Waste Generated<br>(Metric Tons) |
|--------------------------------------|---|---|---|
| Solid Hazardous                      | 3,310                                   | 3,090                                   | 3,010                                   |
| Biological treatment                 | 156                                     | 13                                      | -                                       |
| Incineration with energy recovery    | 2,160                                   | 2,480                                   | 2,060                                   |
| Incineration without energy recovery | 169                                     | 335                                     | 130                                     |
| Landfill                             | 612                                     | 69                                      | 655                                     |
| Recycling                            | 208                                     | 191                                     | 164                                     |
| Reuse                                | -                                       | 2                                       | -                                       |
| Solid Non-hazardous                  | 3,790                                   | 4,020                                   | 3,750                                   |
| Biological treatment                 | 0                                       | 542                                     | 232                                     |
| Incineration with energy recovery    | 722                                     | 605                                     | 425                                     |
| Incineration without energy recovery | 172                                     | 200                                     | 0                                       |
| Landfill                             | 2,460                                   | 2,260                                   | 2,810                                   |
| Recycling                            | 439                                     | 417                                     | 279                                     |
| Reuse                                | -                                       | -                                       | -                                       |
| <b>Grand Total</b>                   | <b>18,600</b>                           | <b>20,000</b>                           | <b>21,400</b>                           |